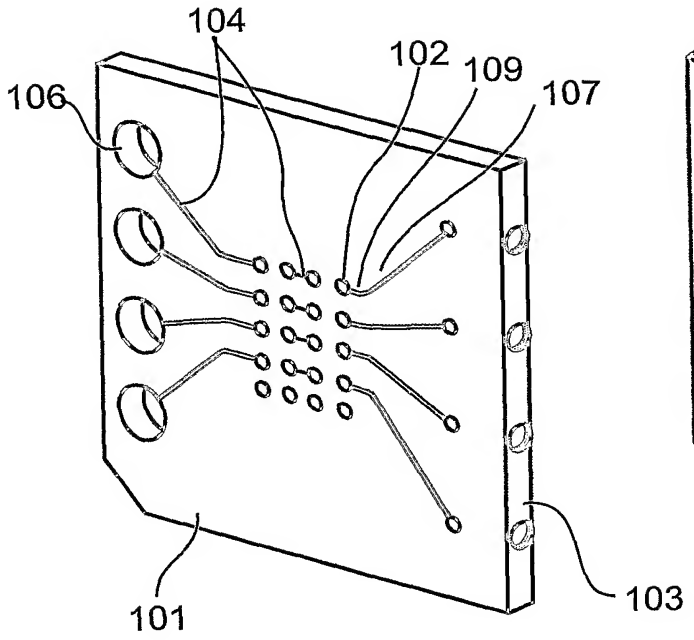

Fig. 1a

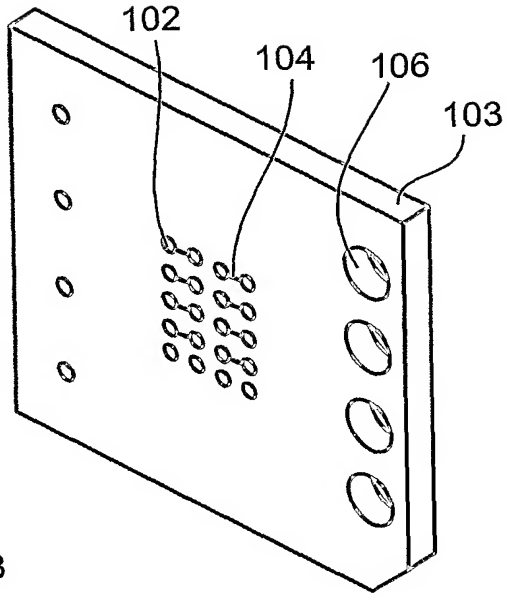

Fig. 1b

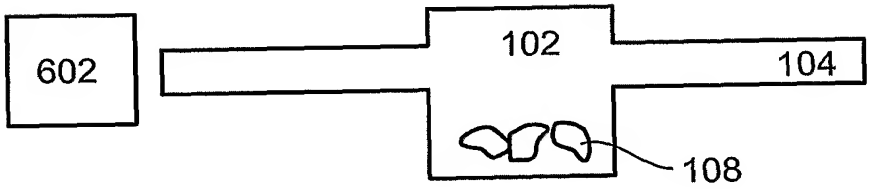

Fig. 1c

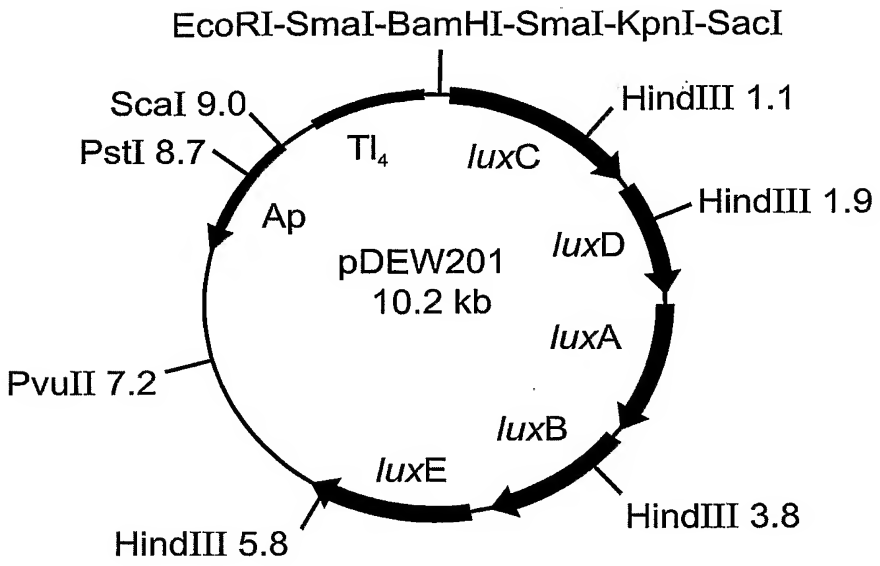
EcoRI-SmaI-BamHI-SmaI-KpnI-SacI
HindIII 1.1
HindIII 1.9
HindIII 3.8
HindIII 5.8
PvuII 7.2
PstI 8.7
ScaI 9.0
Ap
T_{4}
luxC
luxD
luxA
luxB
luxE
pDEW201
10.2 kb

Fig. 2

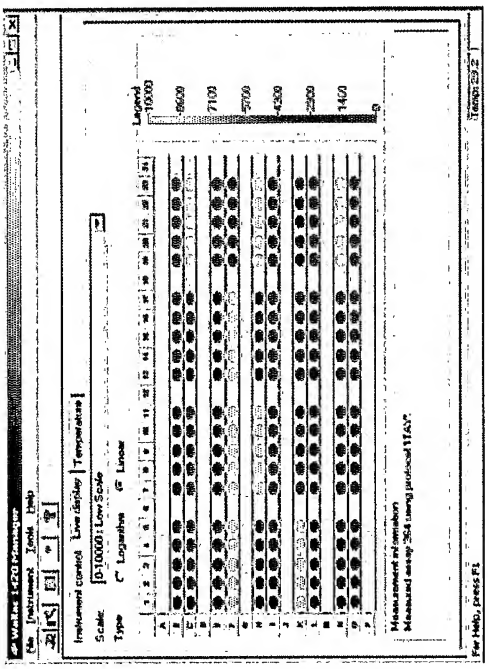

Fig. 3a

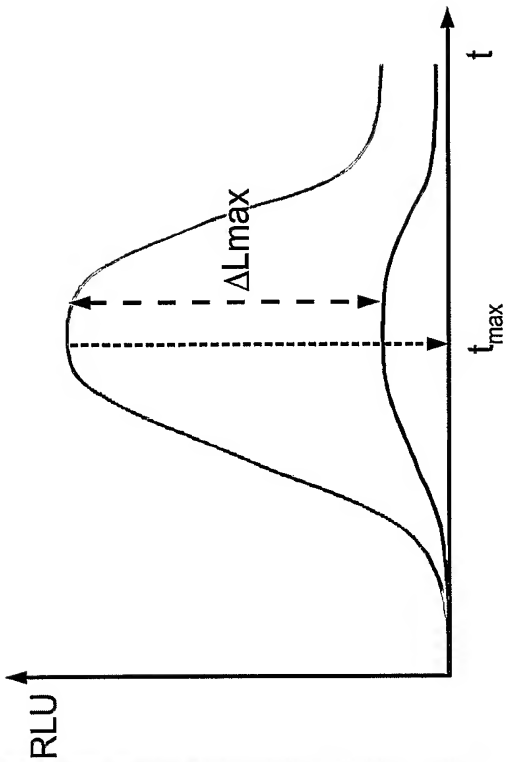

Fig. 3b

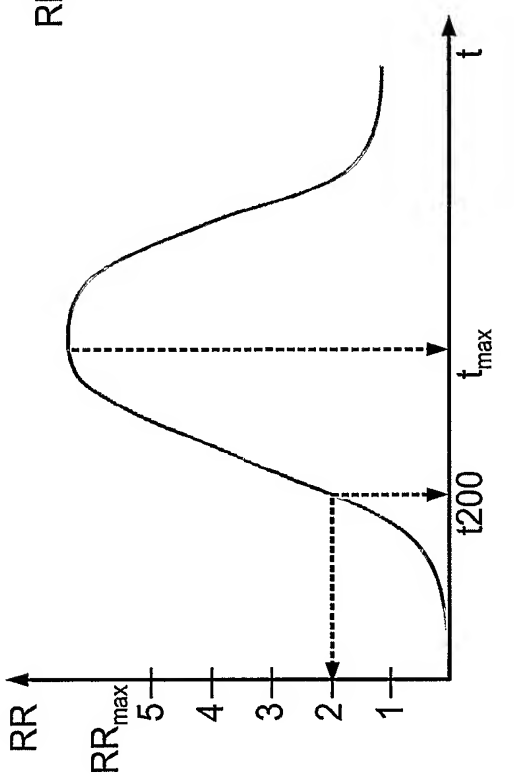

Fig. 3c

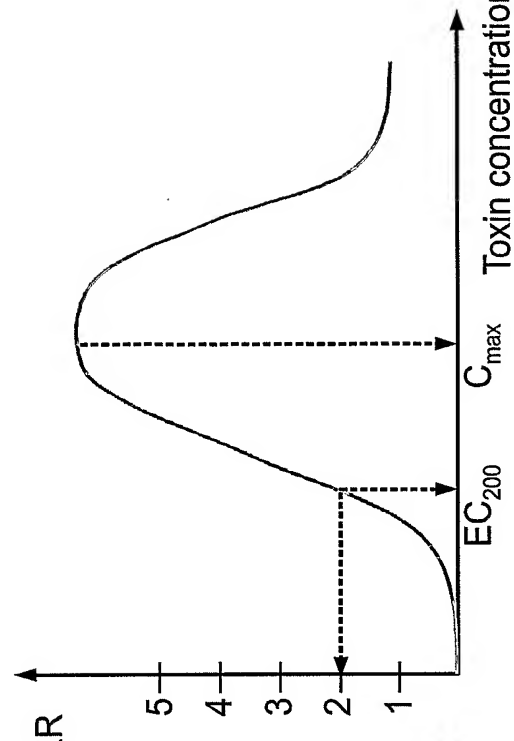

Fig. 3d

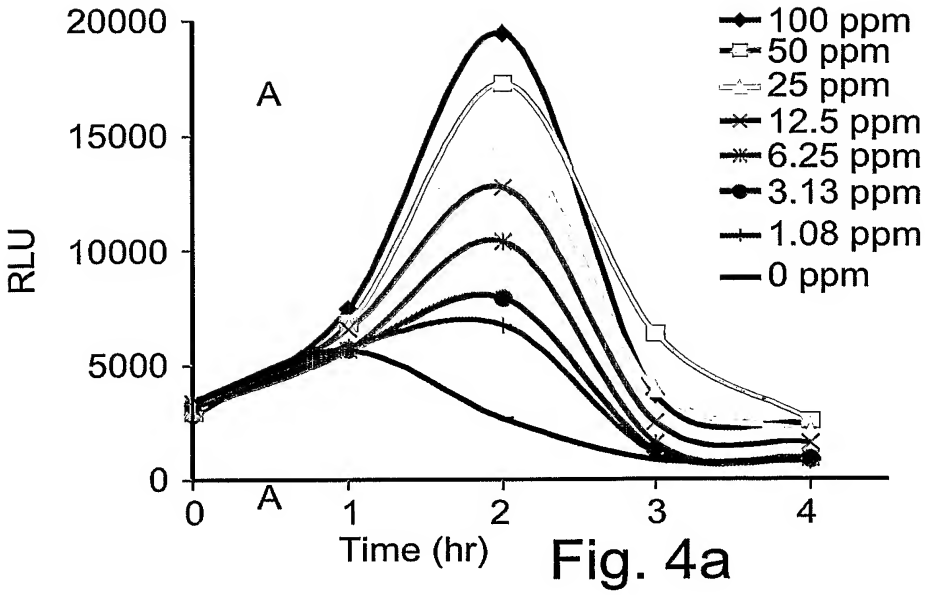

Fig. 4a

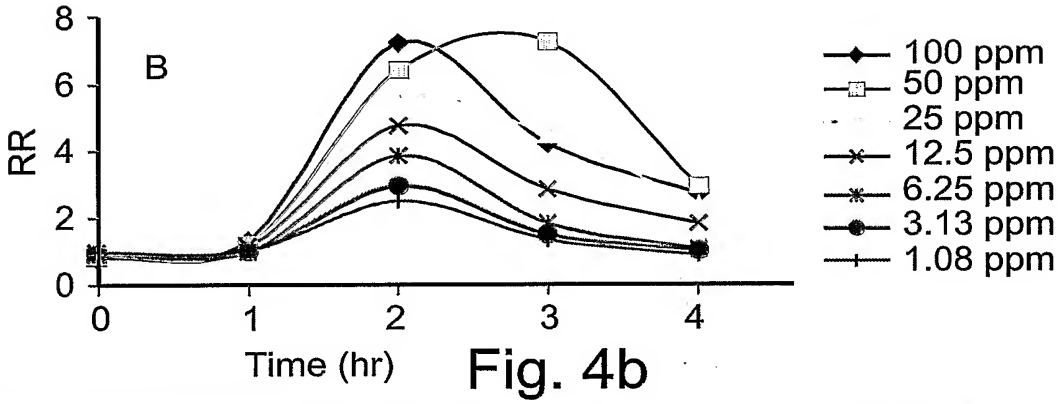

Fig. 4b

NetMaker - nn1 datashit1.txt

File Column Row Label Number Symbol Operate

	Input	Input	Input	Input	Input	Pattern
	grpE	nhoA	oraA	lacZ	mipA	result
1	478	3517	8730	82696	29412	ddvp
2	421	3897	9497	92440	10269	ddvp
3	579	3890	8661	110602	12739	ddvp
4	392	3213	9141	107643	6930	ddvp
5	514	3894	9667	101374	7548	ddvp
6	348	3680	9880	83013	18158	ddvp

Fig. 5

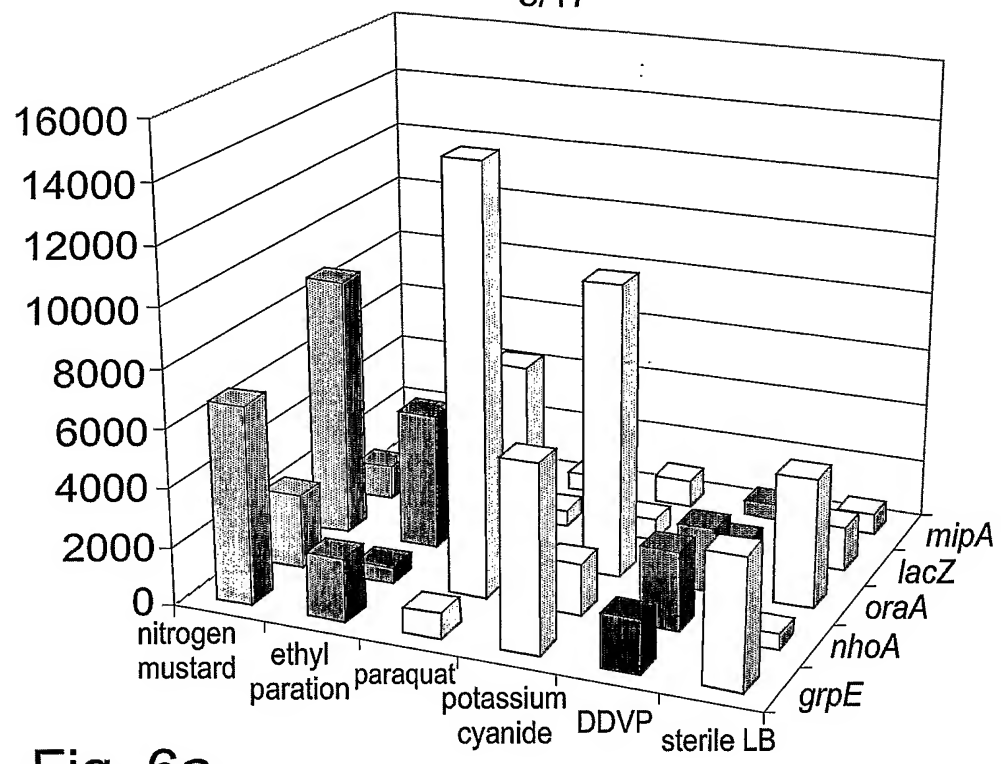
16000
14000
12000
10000
8000
6000
4000
2000
0
nitrogen mustard
ethyl paration
paraquat
potassium cyanide
DDVP
sterile LB
mipA
lacZ
oraA
nhoA
grpE

Fig. 6a

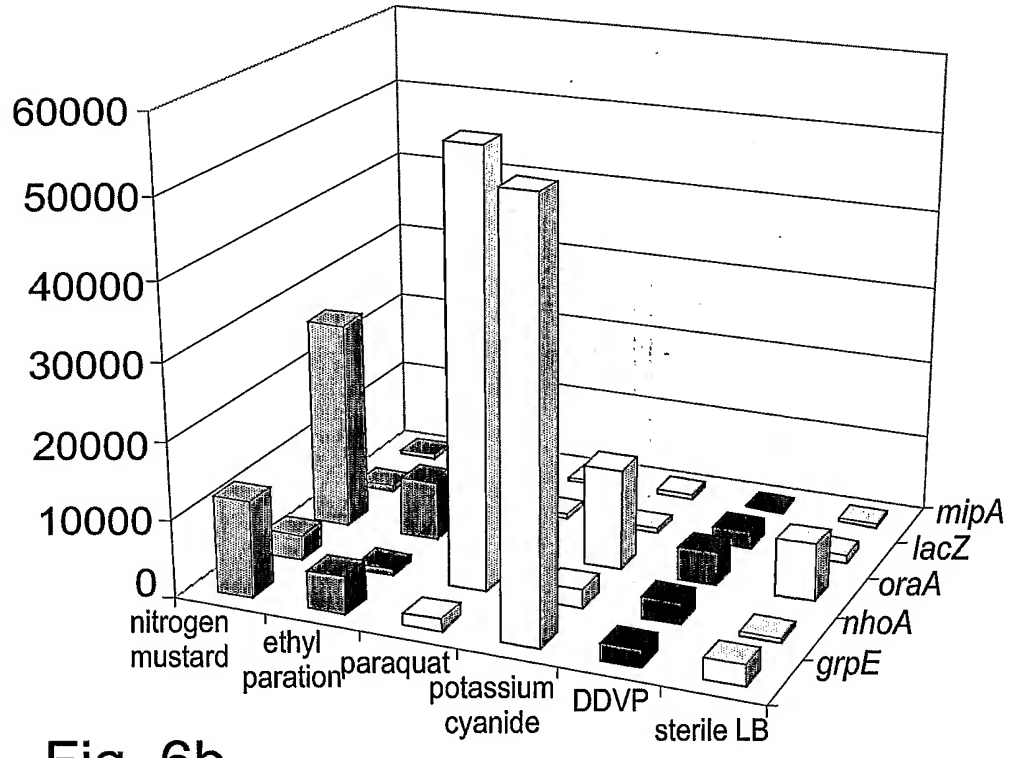
60000
50000
40000
30000
20000
10000
0
nitrogen mustard
ethyl paration
paraquat
potassium cyanide
DDVP
sterile LB
mipA
lacZ
oraA
nhoA
grpE

Fig. 6b

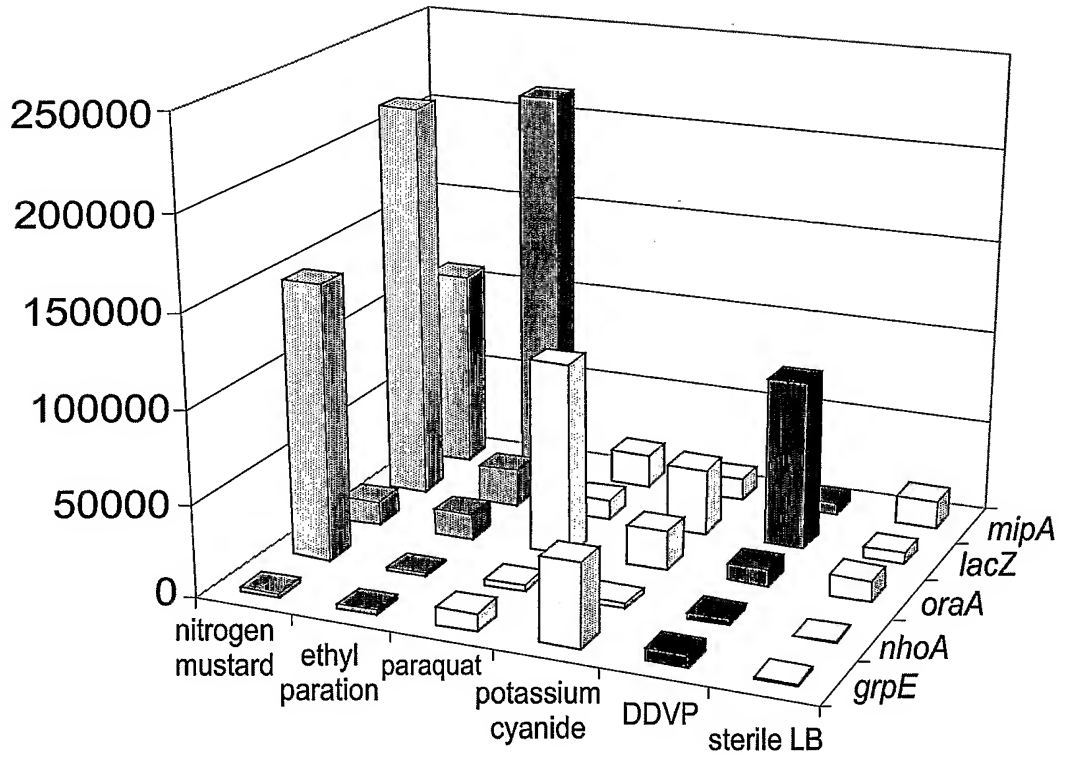
250000
200000
150000
100000
50000
0
nitrogen mustard
ethyl paration
paraquat
potassium cyanide
DDVP
sterile LB
mipA
lacZ
oraA
nhoA
grpE

Fig. 6c

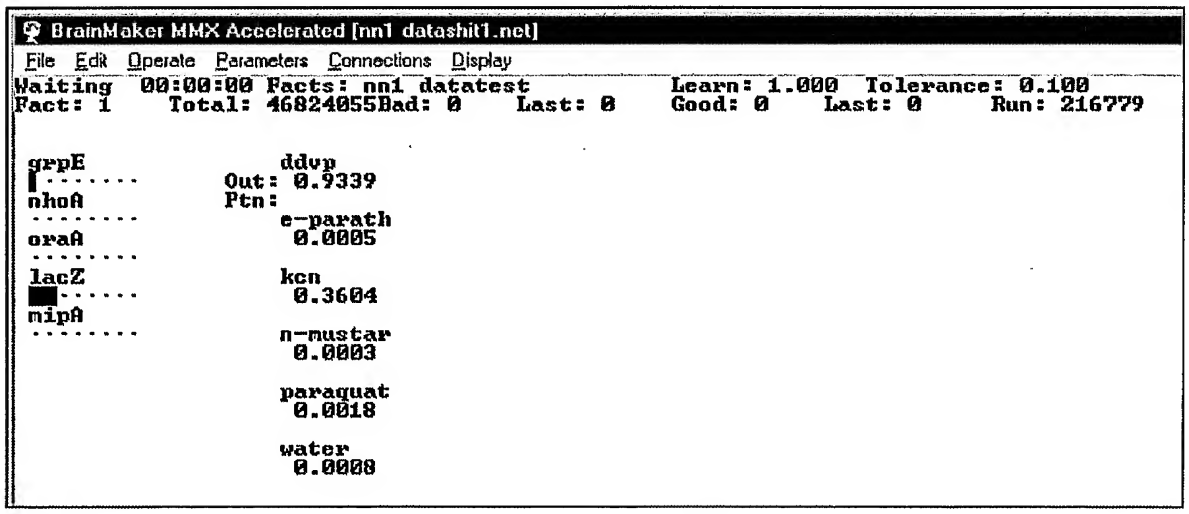
BrainMaker MMX Accelerated [nn1 datashit1.net]
File Edit Operate Parameters Connections Display
Waiting 00:00:00 Facts: nn1 datatest Learn: 1.000 Tolerance: 0.100
Fact: 1 Total: 46824055Bad: 0 Last: 0 Good: 0 Last: 0 Run: 216779
grpE
nhoA
oraA
lacZ
mipA
Out: 0.9339
Ptn:
ddvp
e-parath 0.0005
kcn 0.3604
n-mustar 0.0003
paraquat 0.0018
water 0.0008

Fig. 7

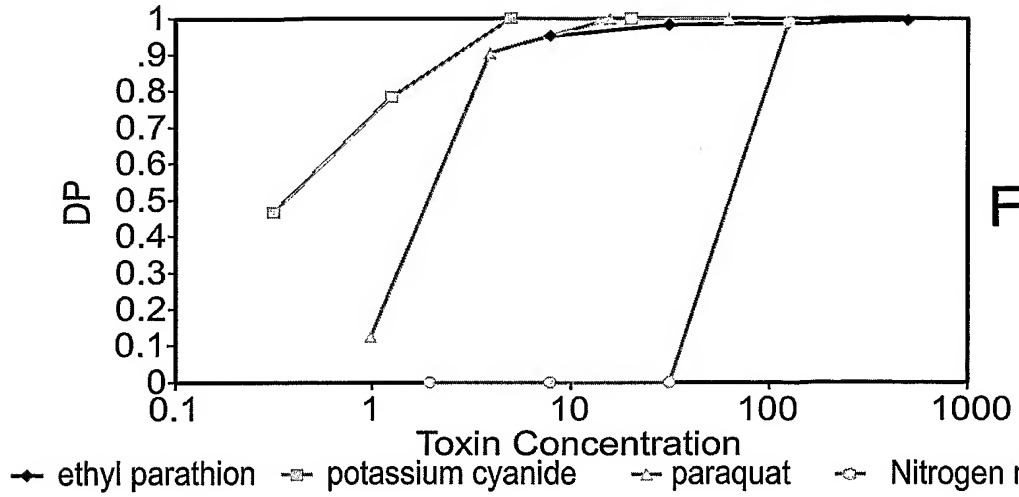

Fig. 8a

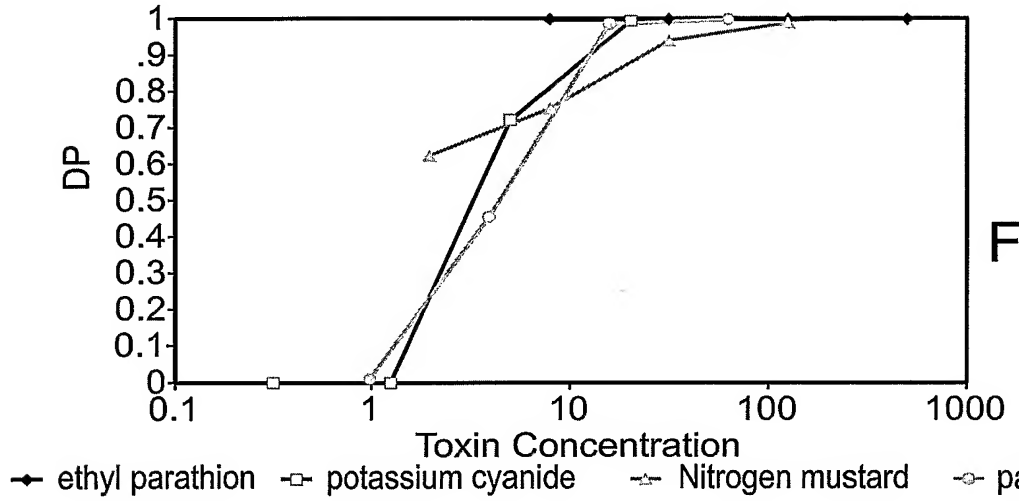

Fig. 8b

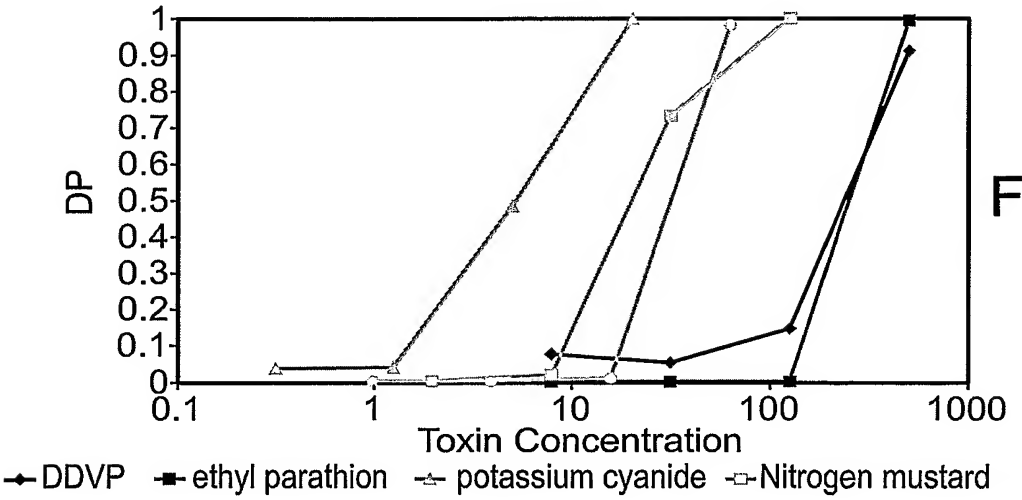

Fig. 8c

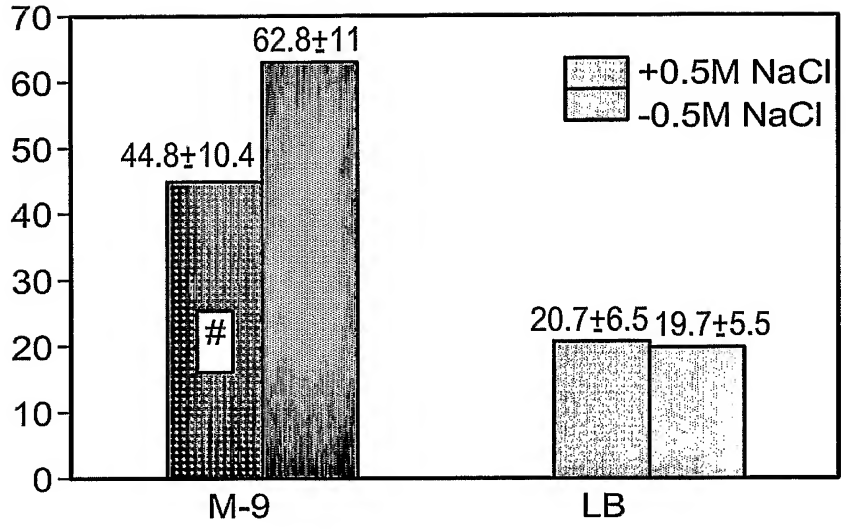
70
60
50
40
30
20
10
0
62.8±11
44.8±10.4
#
20.7±6.5
19.7±5.5
+0.5M NaCl
-0.5M NaCl
M-9
LB

Fig. 9

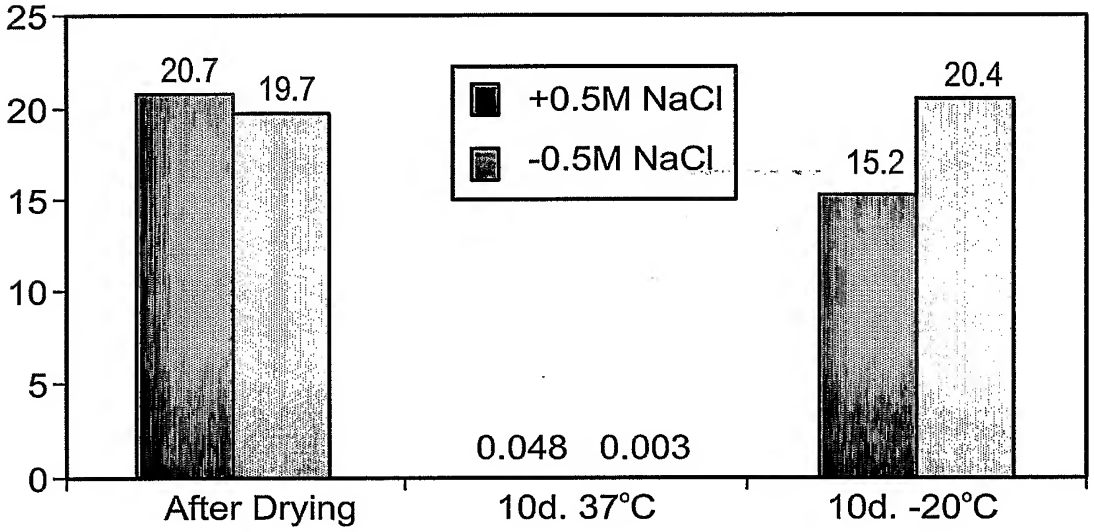
25
20
15
10
5
0
20.7
19.7
0.048
0.003
15.2
20.4
+0.5M NaCl
-0.5M NaCl
After Drying
10d. 37°C
10d. -20°C

Fig. 10

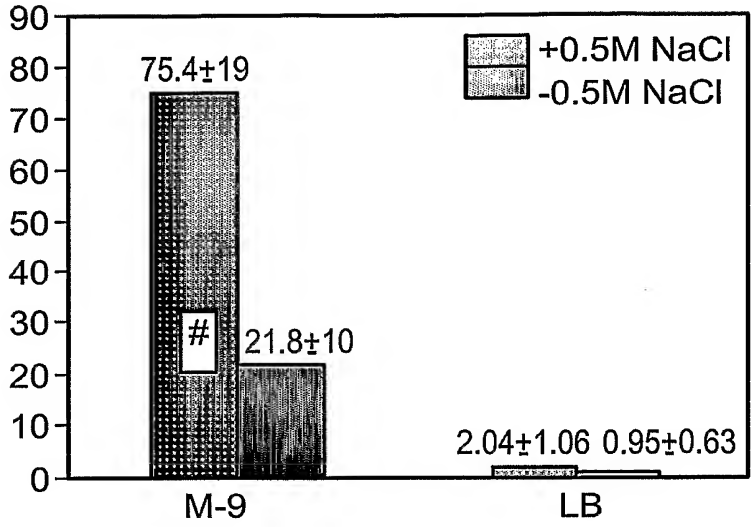
90
80
70
60
50
40
30
20
10
0
+0.5M NaCl
-0.5M NaCl
75.4±19
#
21.8±10
2.04±1.06
0.95±0.63
M-9
LB

Fig. 11

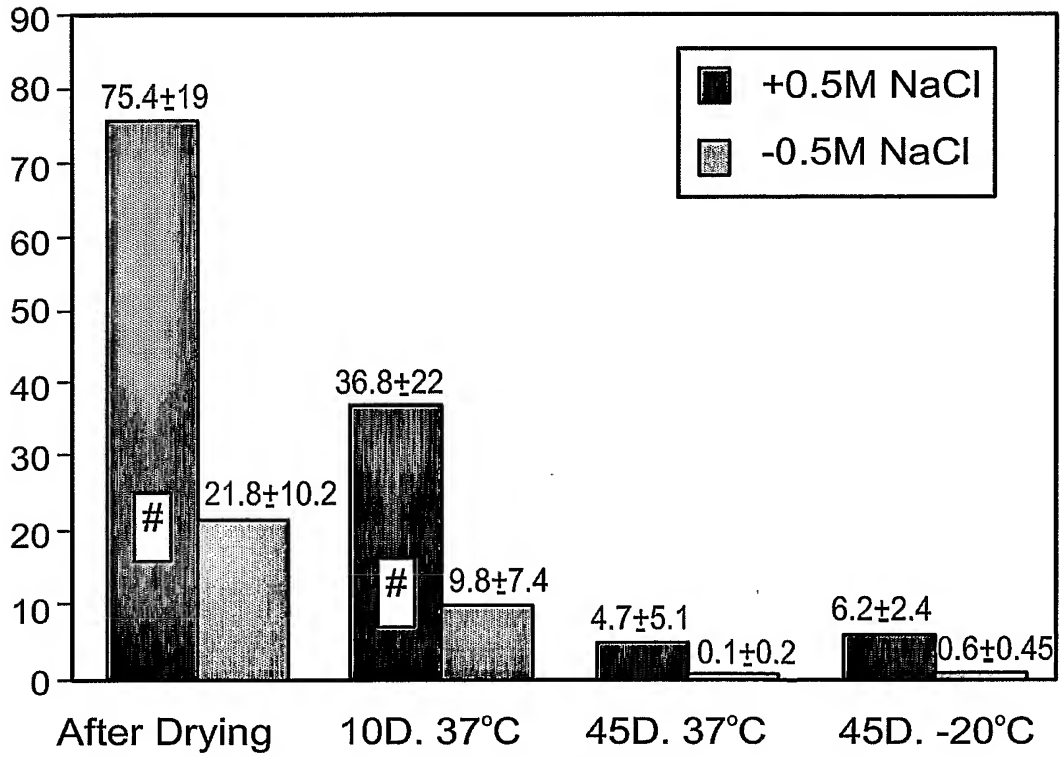
90
80
70
60
50
40
30
20
10
0
+0.5M NaCl
-0.5M NaCl
75.4±19
#
21.8±10.2
36.8±22
#
9.8±7.4
4.7±5.1
0.1±0.2
6.2±2.4
0.6±0.45
After Drying
10D. 37°C
45D. 37°C
45D. -20°C

Fig. 12

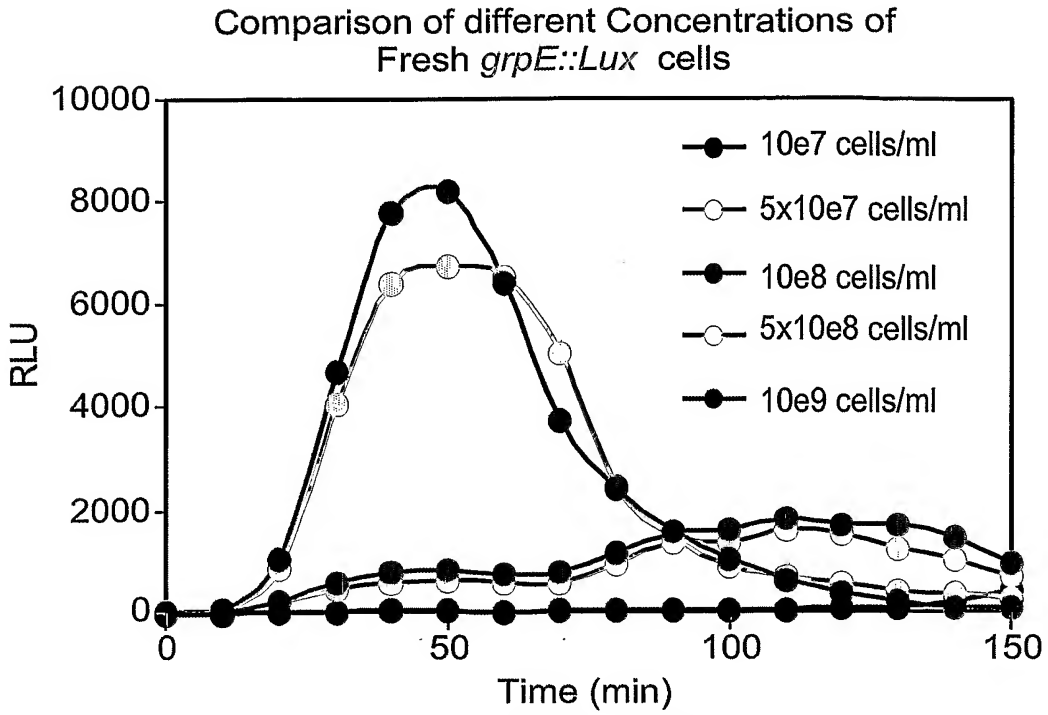

Fig. 13a

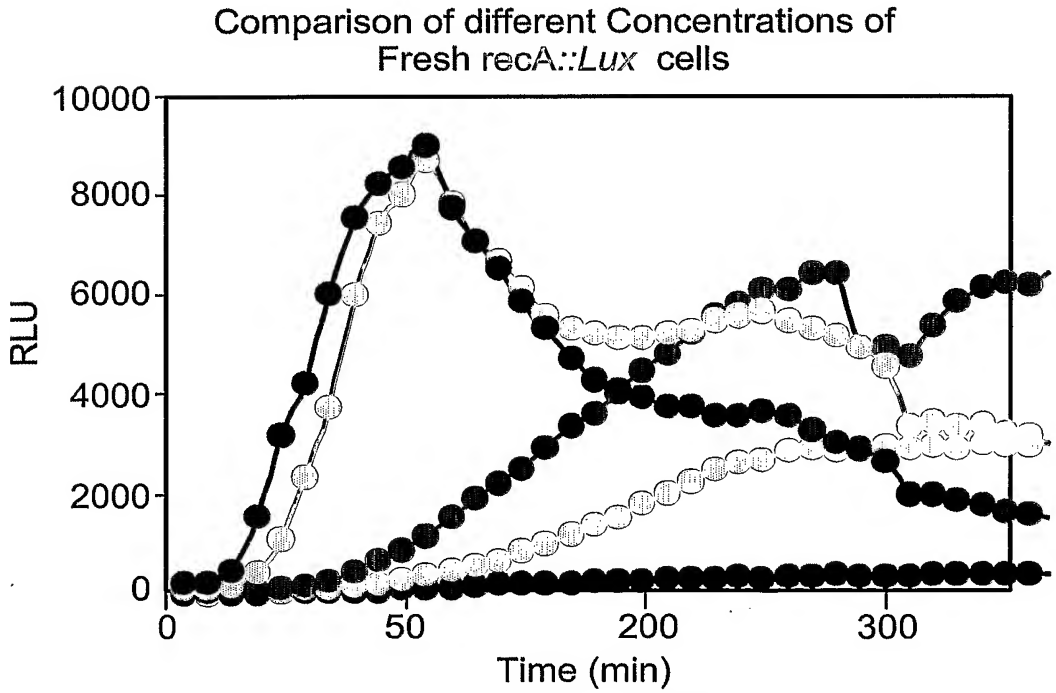

Fig. 13b

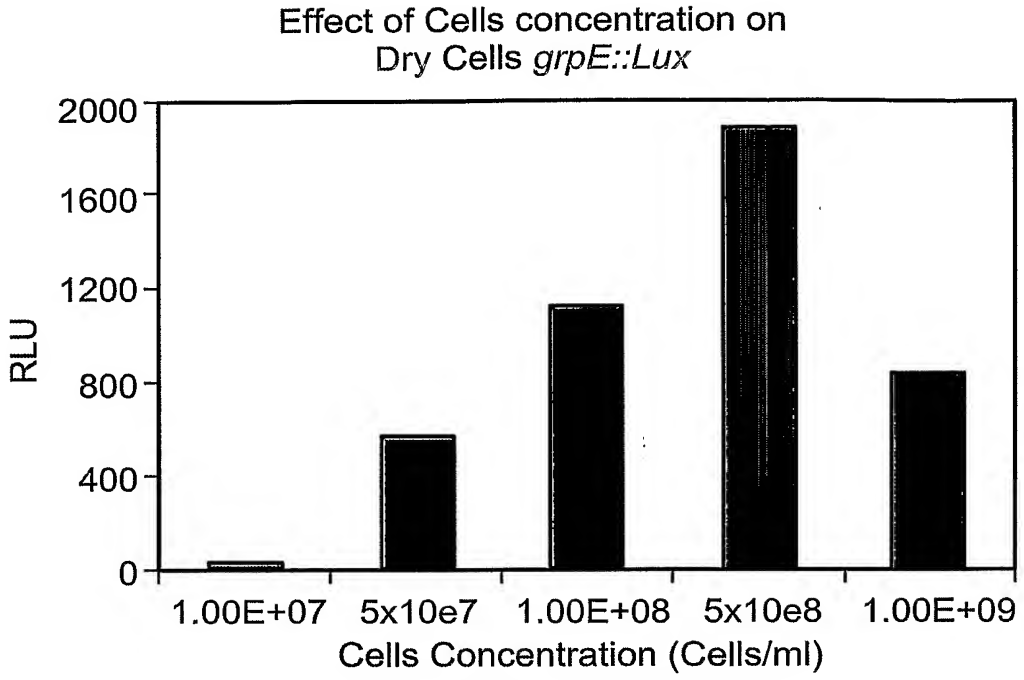

Fig. 14a

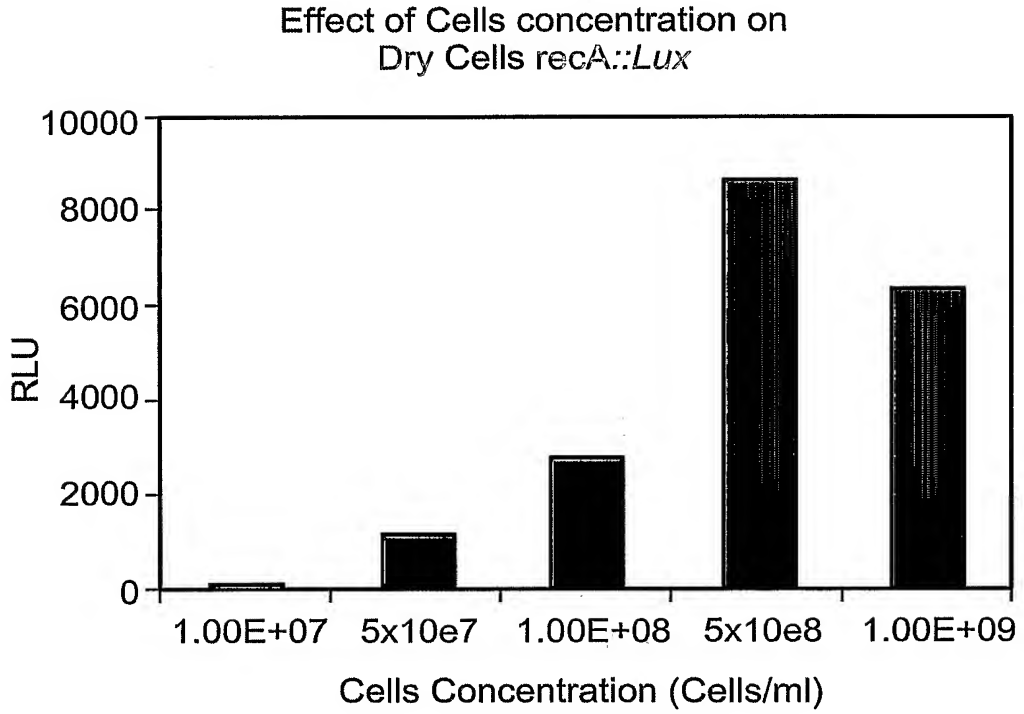

Fig. 14b

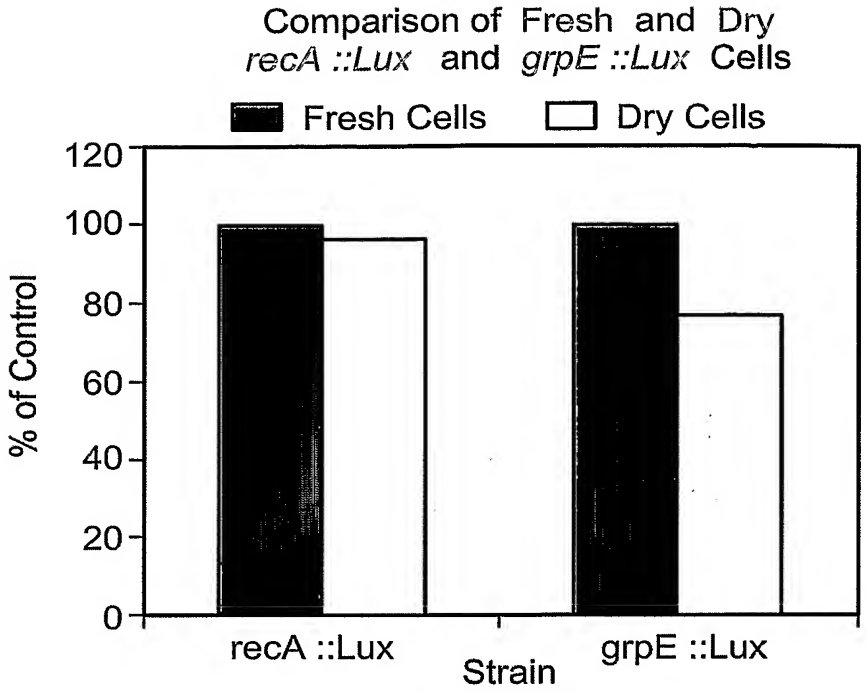
Comparison of Fresh and Dry
recA ::Lux and grpE ::Lux Cells
Fresh Cells
Dry Cells
120
100
80
60
40
20
0
% of Control
recA ::Lux
grpE ::Lux
Strain

Fig. 15

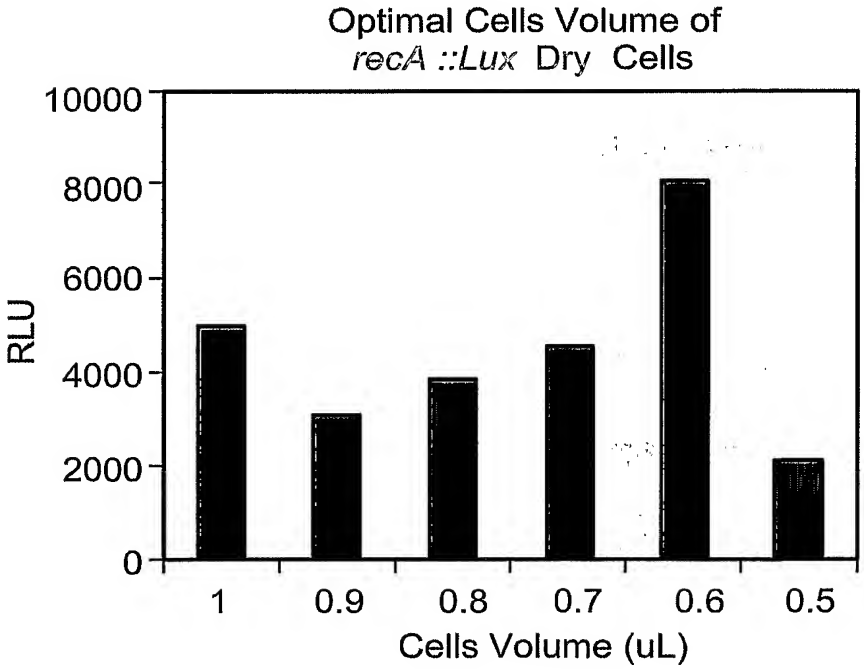
Optimal Cells Volume of
recA ::Lux Dry Cells
10000
8000
6000
4000
2000
0
RLU
1
0.9
0.8
0.7
0.6
0.5
Cells Volume (uL)

Fig. 16

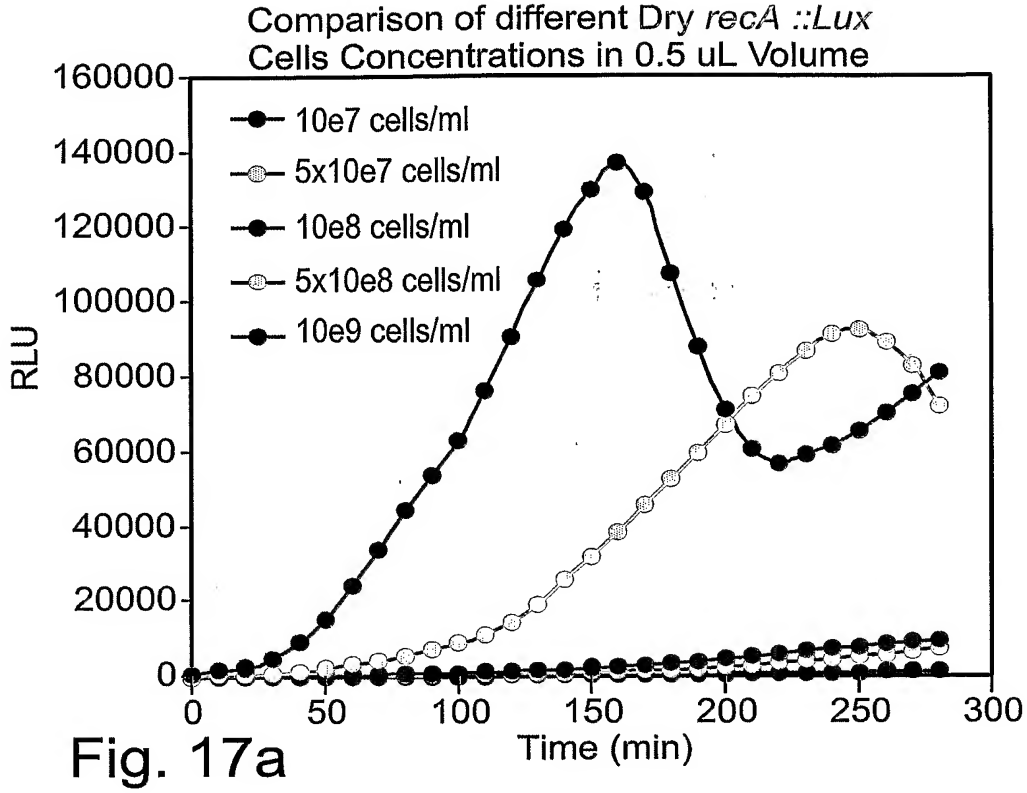

Fig. 17a

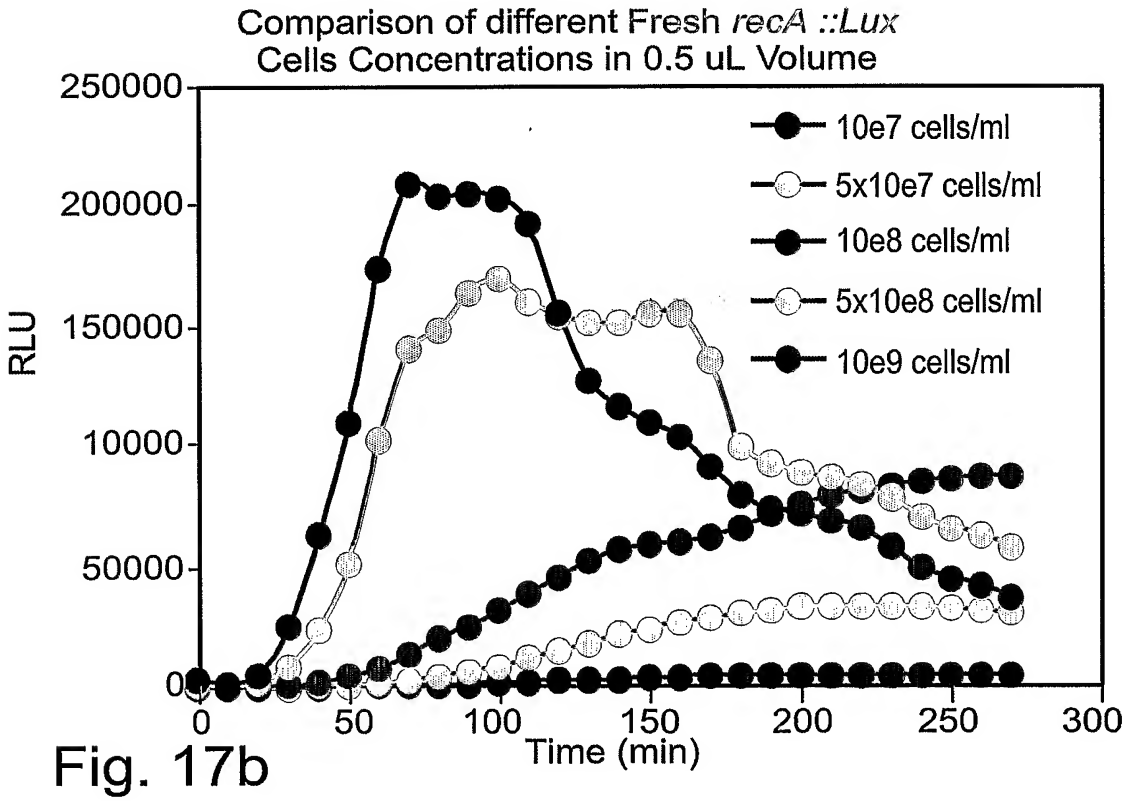

Fig. 17b

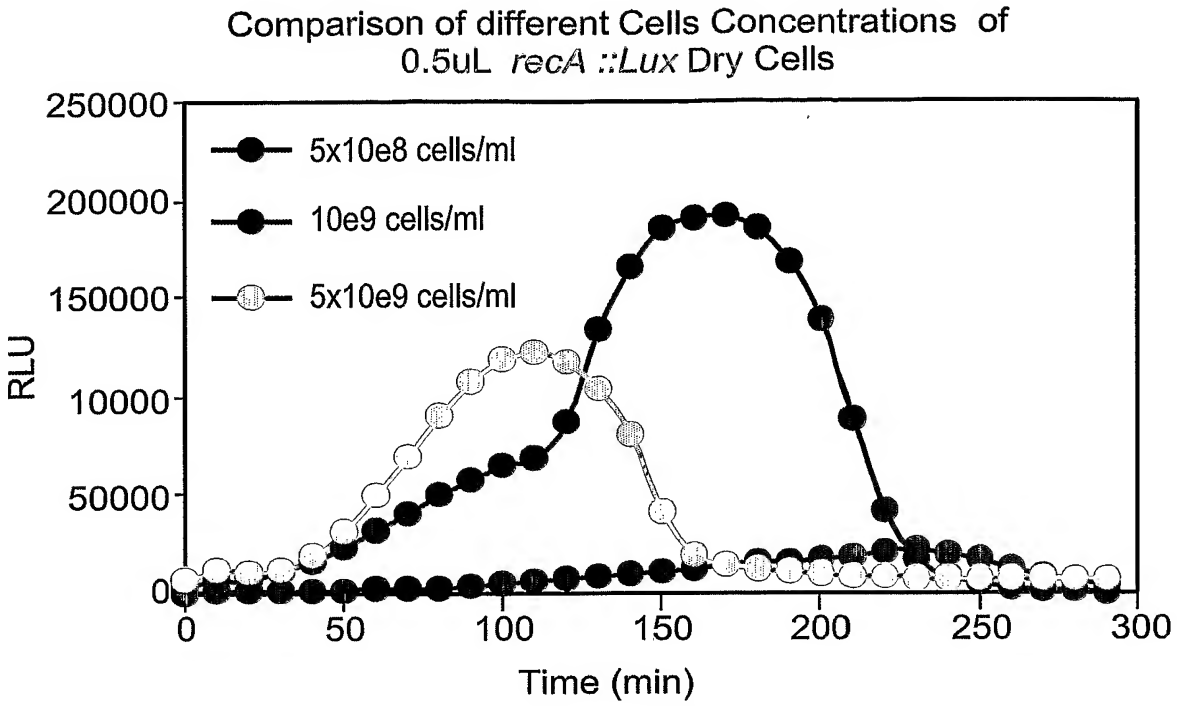
Comparison of different Cells Concentrations of
0.5uL recA ::Lux Dry Cells
250000
200000
150000
10000
50000
0
RLU
5x10e8 cells/ml
10e9 cells/ml
5x10e9 cells/ml
0
50
100
150
200
250
300
Time (min)

Fig. 18

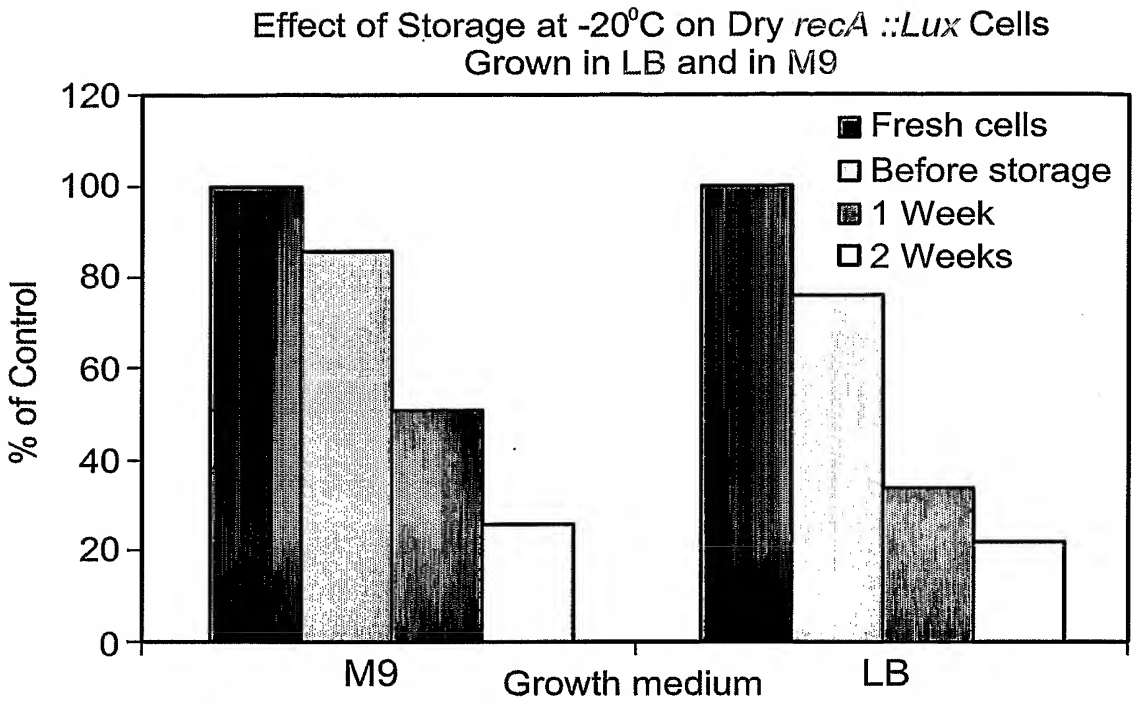

Fig. 19a

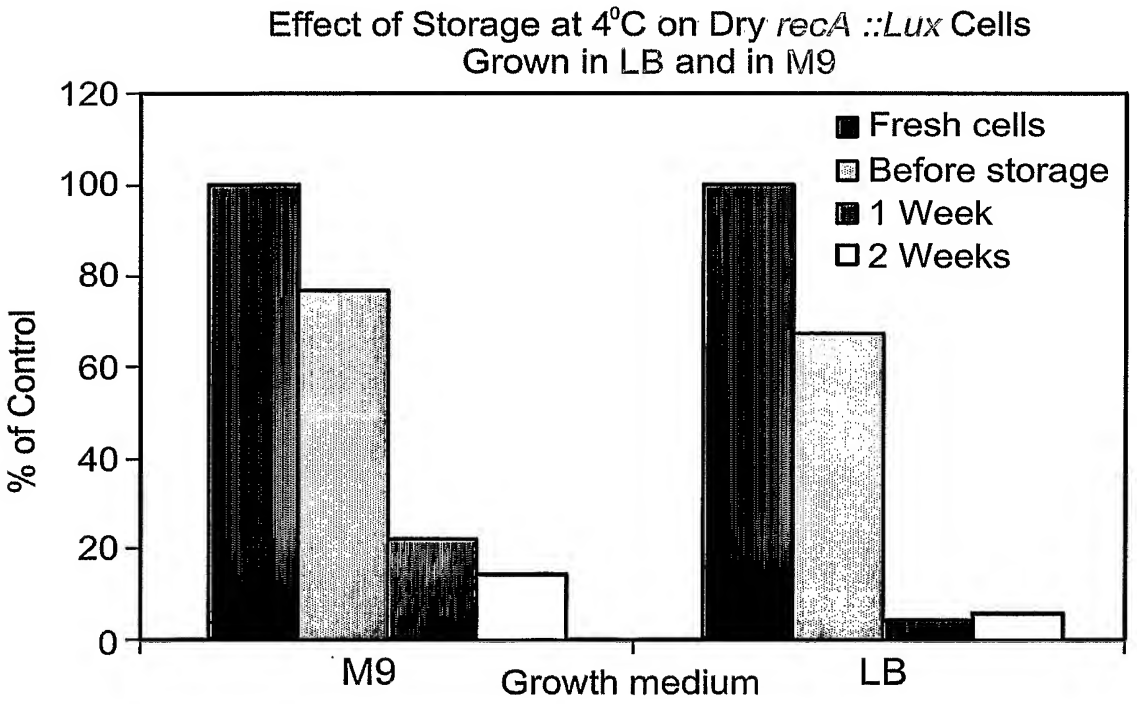

Fig. 19b

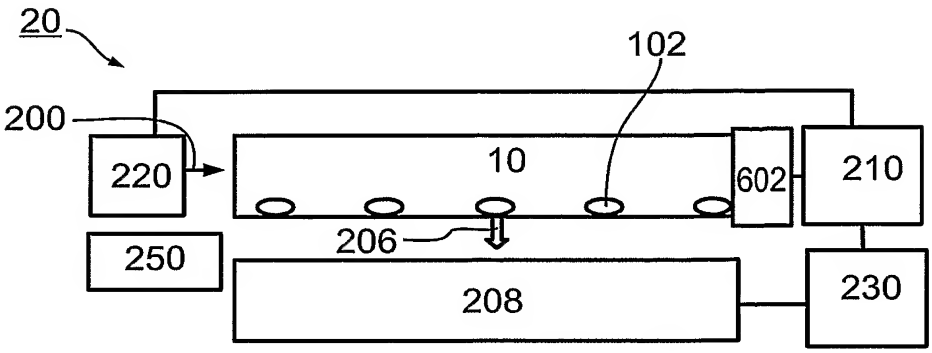

Fig. 20a

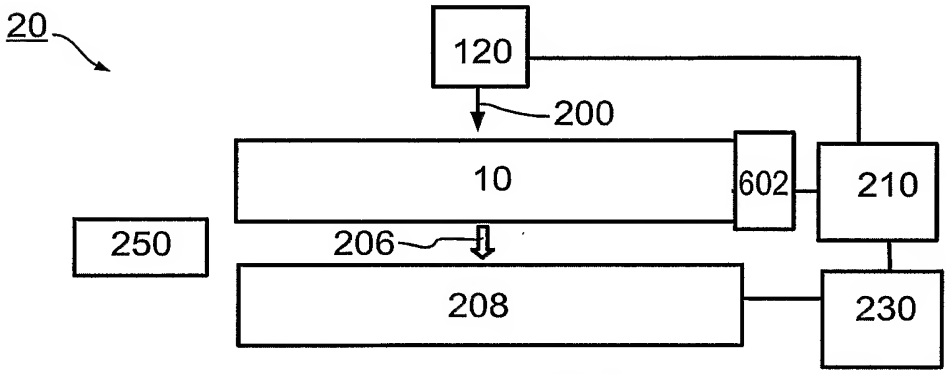

Fig. 20b

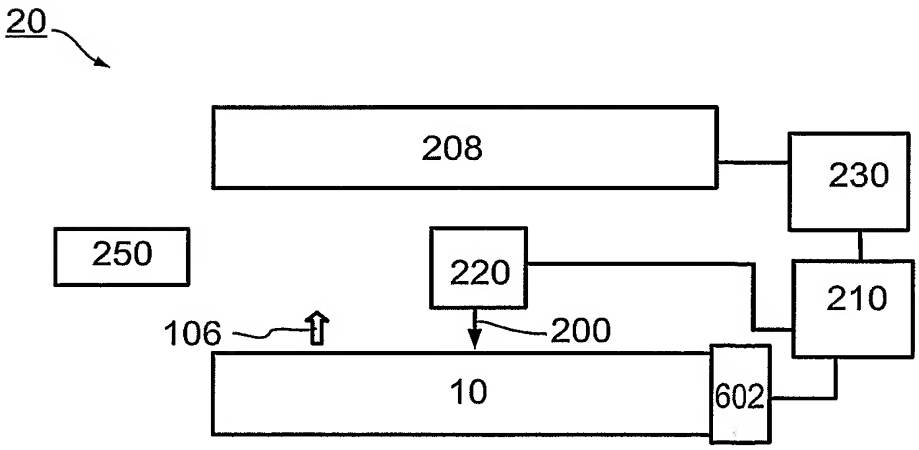

Fig. 20c

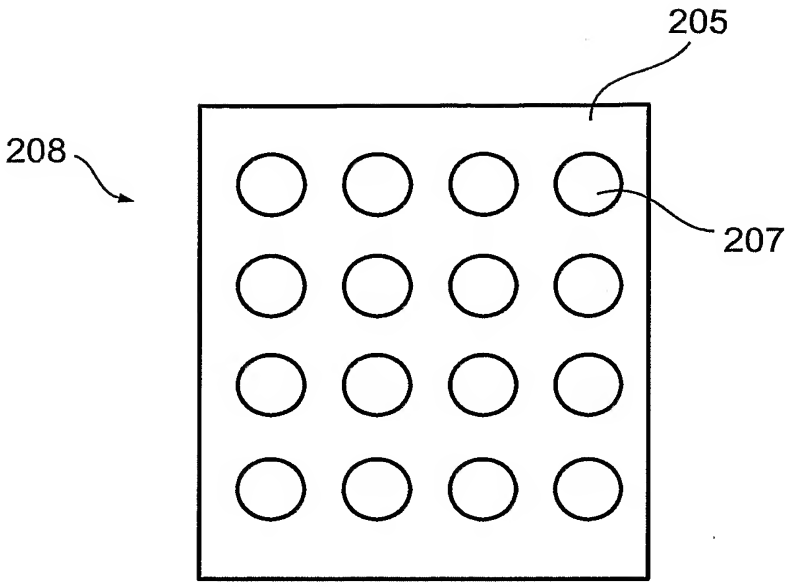

Fig. 21